JavaScript can be embedded in the code of web pages to add interactivity to a page.

Jonas uses JavaScript code to store, list and display the names of cities on a web page.

(a) Two methods of storing the names are shown below.

Method 1:

```
var city1 = "London";
var city2 = "Cambridge";
var city3 = "Oxford";
var city4 = "Manchester";
```

Method 2:

```
var city = ["London", "Cambridge", "Oxford", "Manchester"];
```

Explain why storing the names using Method 2 is more suitable for storing large numbers of cities.

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.....[4]

STUDENTS RESOURCE

CamScanner

(b) Jonas has added some lines to the JavaScript code:

```
/*
The code below stores the list of cities.
*/
var city = ["London", "Cambridge", "Oxford", "Manchester"];
```

Explain why Jonas would have added the new code to the script.

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.....[2]

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(c) Jonas wants to extract 'Oxford' from the list in the code below to display it on the web page.

```
var city = ["London", "Cambridge", "Oxford", "Manchester"];
```

Write a line of JavaScript code to access the list and store the city name.

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(d) Write a loop in JavaScript code to extract and display the first three city names.

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STUDENTS RESOURCE

CamScanner

9626/31/M/J/17/Q3

Frank is a web designer who writes his own code and uses JavaScript on his webpages. He wants to print his name on every page. He creates two versions of the code to run his JavaScript on the webpage. These versions are represented here:

Version 1:

```
<script language="JavaScript">
document.write ("<p>My name is <b>Frank </b> </p>");
</script>
```

Version 2:

```
<script language="JavaScript" src="FranksJavaScriptcode.js">
</script>
```

where the instructions for writing Frank's name are in the file called "FranksJavaScriptcode.js"

Explain why Frank prefers to use Version 2 of the code.

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STUDENTS RESOURCE

CamScanner

9626/32/M/J/17/Q9

3 JavaScript is a programming language used in webpages.

Fig. 2 shows a table created with JavaScript in a webpage.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Fig. 2

The code that created the table is shown below:

```
<html>
   <body>
      <script language="javascript">
         var tableout;
         tableout = "<table border='1' width='300' cellspacing='0'
         cellpadding='3'>"
         for (b = 1; b <= 10; b++) {
            tableout = tableout + "<tr>";
            for (g = 1; g <= 10; g++) {
               tableout = tableout + "<td>" + b * g + "</td>";
            }
            tableout = tableout + "</tr>";
         }
         tableout = tableout + "</table>";
         document.write (tableout);
      </script>
   </body>
</html>
```

STUDENTS RESOURCE

CamScanner

Explain how the loops in the code create the table.

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STUDENTS RESOURCE

CamScanner

9626/32/O/N/17/Q11

4 A shop is open between 12 noon and 10 pm.

While the shop is closed in the morning, a message saying "Sorry, we are closed" is displayed. After the shop has closed in the evening a message saying "Please try again tomorrow" is displayed. At all other times, a message saying, "Hello, we are open now" is displayed.

JavaScript code can be used to alter web pages in real time.

Complete the code in the function below that will allow a user to find out if the shop is open or closed.

```
function OpenTimesFunction() {
var welcome;
var timenow = new Date().getHours();
```

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```
document.getElementById("open").innerHTML = welcome;
//This line displays the result of the code
}
```

[6]

STUDENTS RESOURCE

CamScanner

9626/32/O/N/17/Q11

4 A shop is open between 12 noon and 10 pm.

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JavaScript code can be used to alter web pages in real time.

Complete the code in the function below that will allow a user to find out if the shop is open or closed.

```
function OpenTimesFunction() {
var welcome;
var timenow = new Date().getHours();
```

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```
document.getElementById("open").innerHTML = welcome;
//This line displays the result of the code
}
```

[6]

STUDENTS RESOURCE

CamScanner

9626/32/F/M/18/Q6

5 Drivers who are 16 years of age or older can apply for a driving licence online.

The government web page code requires applicants to enter their age and then checks if they are old enough to apply.

The following code captures the applicant's age. When the applicant clicks the 'Check now' button the age is first checked to ensure that it is numeric. The age is then checked to see if the applicant is old enough. Suitable messages are displayed as a result of the checks.

Complete the code for the function ***CheckAgeFunction*** that checks the age entered by the applicant and displays an appropriate response.

```
<html>
<body>
<p>You can apply for a licence to drive when you are 16 years old.</p>
<p>To check if you are old enough to drive, input your age and click
the button:</p>
<input id="AgeNow" value="16" />
<button onclick="CheckAgeFunction()">Check now</button>
<p id="AgeCheck"></p>
<script>
      function CheckAgeFunction() {
```

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```
    }
    document.getElementById("AgeCheck").innerHTML = CanApply;
}
</script>
</body></html>
```

STUDENTS RESOURCE

CamScanner

9626/31/M/J/18/Q2

6 JavaScript defines a number of primitive data types.

(a) Explain the term 'primitive' when used in this context.

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.....[2]

(b) Describe **three** primitive data types used in JavaScript.

1 .....

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2 .....

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3 .....

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.....[3]

9626/31/M/J/18/Q3

7 Variables are used in JavaScript to hold values.

Explain how a variable is created in JavaScript code.

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STUDENTS RESOURCE

CamScanner

9626/32/M/J/18/Q1

An online store requires customers to create an account using its website. The online form for creating the account, with customer entries, is shown in Fig. 1.

Create a Customer Account

Note that all fields marked with * are required.

Your first name* Jasmine

Your family name* Singh

Valid email address* jasmine@singh.me ***Please enter a valid email ID***

Confirm email address* jasmine@singh.me ***Please re-enter your email ID***

Password* **********

Confirm password* **********

Security question* Mother's first name ▽ ***Please select a question***

Enter the answer* Jaswinder ***Enter a keyword for the answer***

Gender Male ○ Female ◉

Date of birth (DoB)* 11 ▽ 10 ▽ 2002 ▽

Please enter your DoB as ***month*** ***day*** ***year***

I agree to the Terms and Conditions and to the Privacy Policy*

Please check the box to show that you have read and agree to the terms. ☑

Fig. 1

STUDENTS RESOURCE

CamScanner

The data entered by the customer is checked for accuracy before it is submitted to the website.

(a) Describe, using the information shown in Fig. 1, how the data in the required fields (fields marked *) on the form could be checked.

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(b) Describe **one** essential element that must be added to the form.

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STUDENTS RESOURCE

CamScanner

9626/32/M/J/18/Q4

9 'Loops' are used in JavaScript to execute a block of code several times.

The following code shows a 'for' loop and the code for displaying the result.

```
<p id="Number"></p>

    <script>
 //JavaScript code follows
       var displayresult = "";
       var X;

    for (X = 1; X < 10; X += 3) {
    displayresult += X + "<br>";
   }
//the following line displays the contents of 'displayresult' on the
webpage
   document.getElementById("Number").innerHTML = displayresult;
</script>
```

(a) Describe what each statement in the 'for' loop does and the results that are output when code is executed.

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STUDENTS RESOURCE

CamScanner

(b) Rewrite the 'loop' code as a DO WHILE loop to display the same results.

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(c) The JavaScript code is deemed to be 'client-side' code.

Explain why the use of 'client-side' code can cause problems.

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STUDENTS RESOURCE

CamScanner

9626/33/M/J/18/Q2

The use of JavaScript within the HTML code of a web page allows the page to react to user intervention.

The code below contains a function named ***checkreadpagefunction*** that will ask the user to confirm that the page has been read.

Complete the JavaScript code by writing extra code that will capture the click event and execute the function.

```
<html>
<body>
<p>Click on the button to confirm that you have read this page.</p>
<button id="button1">Click here</button>
<script>
```

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.....[6]

```
function checkreadpagefunction() {
    alert ("I have read this page.");
}
</script>
</body>
</html>
```

You may use the space below for any rough work.

STUDENTS RESOURCE

CamScanner

9626/32/O/N/18/Q5

11 Quintin is a programmer who writes code in HTML and JavaScript for use in online forms. The code is developed and 'white-box' tested before being used.

Quintin is developing the code below. He has added comments to the code. The code asks a user to input two numbers and adds the numbers together. It also displays the total and whether or not it is greater than 10.

```
<html>
<body>

<!-- the next six lines collect the two numbers to be added-->

<br/>Enter first number:
<input type="number" id="nm1" name="num1">
<br/><br/>Enter second number:
<input type="number" id="nm2" name="num2">
<p id="add"></p>

<script>
  function myaddfunction() {
//the next line assigns the first number input to the variable y
               var y = document.getElementById("nm1").value;
//the next line assigns the second number input to the variable z
              var z = document.getElementById("nm2").value;
//the next line adds the two numbers and assigns the result to the variable x
               var x = +y + +z;
//the next line checks if x is greater or not greater than 10 and reports
accordingly
              var A = (x >10) ? x+ " is greater than 10":x+ " is not greater
than 10";
//the next line prints the results onto the page
document.getElementById("add").innerHTML = A ;
   }
</script>
<!-- the next two lines asks the user to click the button and then the script
is executed
<p>Click the button to calculate the total.</p>
<button onclick="myaddfunction()">Add the numbers</button>
<br/>
  </body>
</html>
```

STUDENTS RESOURCE

CamScanner

(a) Explain how Quintin could use 'white box' testing to ensure that the JavaScript code produces the correct result every time.

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STUDENTS RESOURCE

CamScanner

(b) Explain why it is good practice that Quintin places his JavaScript code in external files rather than embeds the code in the actual page code.

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.....[6]

STUDENTS RESOURCE

CamScanner

9626/33/O/N/18/Q5

JavaScript can be embedded in the code of web pages to add interactivity to a page.

Explain what is meant by the following terms when they are used in JavaScript:

(a) an array.

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.....[1]

(b) a variable.

.....

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.....[1]

(c) a function.

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.....

.....[1]

(d) a comment.

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.....[1]

(e) an object.

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.....

.....[1]

(f) an expression.

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.....[1]

STUDENTS RESOURCE

CamScanner

9626/32/F/M/19/Q1

13 Errors in JavaScript code can cause the code to fail to execute when run by a web browser. The code shown is intended to display a table on a web page when run in a web browser. The line numbers are shown only for your convenience when referencing the code in your answers.

```
1  <html>
2  <body>
3  <script language="JavaScript">
4  tableout = "<table border='1' width='300' cellspacing='0'
   cellpadding='3'>"
5  for (b = 1; b <= 10; b++) {
6  tableout = tableout + "<tr>";
7  for (g = 1; g <= 10; g++) {
8  tableout = tableout + "<td>" + b * g + "</td>";
9  }
10 tableout = tableout + "</tr>";
11 }
12 tableout = tableout + "</table>";
13 document.write (tableout);
14 </script>
15 </body>
16 </html>
```

(a) The code does not run as intended in web browsers because there is an error in the code.

Describe how the error in the code prevents the web browser from running as intended.

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STUDENTS RESOURCE

CamScanner

(b) Errors can be 'trapped' in order that the performance of the web browser is not affected.

Explain how you can use error handling techniques to trap errors in JavaScript code.

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STUDENTS RESOURCE

CamScanner

9626/31/M/J/19/Q2

14 In JavaScript code, the sort() function is used to sort lists into ascending order.

(a) Explain, in detail, why, when using the sort() function, the list in Fig. 2.1 is sorted correctly, but the list in Fig. 2.2 is not.

Before sorting	After sorting
fly	ant
cockroach	beetle
ant	butterfly
butterfly	cockroach
moth	fly
beetle	moth

Fig. 2.1

Before sorting	After sorting
1345	1111
3666	12
1111	1345
23	23
37	3666
12	37

Fig. 2.2

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(b) Write a line of JavaScript code that could be used to sort the list of insects in Fig. 2.1 into descending order.

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STUDENTS RESOURCE

CamScanner

9626/31/M/J/19/Q3

5 An online retailer uses a simple form on its website to enable customers to contact its After Sales department by email. The form looks like this:

Send an email to aftersales@mycompany.com:

Your Name:

Your email address:

Comment:

Send Reset

Some of the code that created the form is shown.
Note that the lines have been numbered only for your convenience and reference.

```
1  <html>
2  <body>
3
4  <h2>Send an email to aftersales@mycompany.com:</h2>
5
6  <form action="mailto: aftersales@mycompany.com" method="post"
   enctype="text/plain">
7
8  Your Name:<br>
9
10 Your email address:<br>
11
12 Comment:<br>
13
14
15
16 </form>
17 </body>
18 </html>
19
20
```

STUDENTS RESOURCE

CamScanner

(a) Explain what the different parts of the code in line 6 do.

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..... [6]

(b) Create some additional lines of code that could be inserted into the script at appropriate locations to collect the name and email address of the customer. Indicate, with reference to the line numbers, where your additional code should be inserted.

Line number	Code

STUDENTS RESOURCE

[4]

CamScanner

(c) Write down the code that would allow:

- the comment to be entered
- the form to be submitted
- the form to be reset.

Indicate which line numbers the codes would appear on.

Line number	Code

[6]

STUDENTS RESOURCE

CamScanner

9626/32/M/J/19/Q3

16 An author has written the source code of a web page that will be used when a person applies for a driving licence. The code, shown in Fig. 3.1, is intended to check that a person is at least 16 years of age.

The lines of the code are numbered only for your convenience when referring to the code. The JavaScript code is in lines 8 to 19.

```
1    <html>
2    <body>
3    <p>You can apply for a licence to drive when you are 16 years
     old.</p>
4    <p>To check if you are old enough to drive, input your age and
     click the button:</p>
5    <input id="AgeNow" value="16" />
6    <button onclick="CheckAgFunction()">Check now</button>
7    <p id="AgeCheck"></p>
8
9           function CheckAgeFunction()
10   var AgeNow;
11       AgeNow = Number(document.getElementById("AgeNow").value);
12       if (isNaN(AgeNow)) {
13           CanApply = "Please enter your age in numbers.";
14       } else {
15           CanApply = (AgeNow >15)? "You are too young to apply
     for a licence.": "You are old enough to apply for a licence.";
16       }
17       document.getElementById("AgeCheck).innerHTML = CanApply;
18   }
19
20   </body>
21   </html>
```

Fig. 3.1

Testing has shown that the code contains a number of errors of different types which must be corrected before the code will perform as expected.

STUDENTS RESOURCE

CamScanner

9626/32/M/J/19/Q3

16 An author has written the source code of a web page that will be used when a person applies for a driving licence. The code, shown in Fig. 3.1, is intended to check that a person is at least 16 years of age.

The lines of the code are numbered only for your convenience when referring to the code. The JavaScript code is in lines 8 to 19.

```
1    <html>
2    <body>
3    <p>You can apply for a licence to drive when you are 16 years
     old.</p>
4    <p>To check if you are old enough to drive, input your age and
     click the button:</p>
5    <input id="AgeNow" value="16" />
6    <button onclick="CheckAgFunction()">Check now</button>
7    <p id="AgeCheck"></p>
8
9           function CheckAgeFunction()
10   var AgeNow;
11       AgeNow = Number(document.getElementById("AgeNow").value);
12       if (isNaN(AgeNow)) {
13           CanApply = "Please enter your age in numbers.";
14       } else {
15           CanApply = (AgeNow >15)? "You are too young to apply
     for a licence.": "You are old enough to apply for a licence.";
16       }
17       document.getElementById("AgeCheck).innerHTML = CanApply;
18   }
19
20   </body>
21   </html>
```

Fig. 3.1

Testing has shown that the code contains a number of errors of different types which must be corrected before the code will perform as expected.

STUDENTS RESOURCE

CamScanner

Identify the line numbers containing the errors. Explain why each of the errors prevents the code from running correctly and how each should be corrected. Use the table for your response.

Line number of error and explanation of error.	Explanation of suggested correction.

[8]

STUDENTS RESOURCE

CamScanner

9626/31/O/N/19/Q11

17 The area of a rectangle can be calculated using the JavaScript embedded in a web page as shown below.

```
<html>
<body>
<script>
var length = parseFloat(prompt("Enter length of the rectangle : "));
var width = parseFloat(prompt("Enter width of the rectangle : "));

var calc_area = (length * width);

    document.write("<br>");
    document.write("<h3> Area of a rectangle</h3>");
    document.write("<font face='arial' size='3'>")
    document.write(" The sides of the rectangle are " + length + " by " +
    width + ".</font><br>");
    document.write("<font face='arial' size='3'>")
    document.write(" The area of the rectangle  is " + calc_area +
    ".</font><br>");

</script>
</body>
</html>
```

STUDENTS RESOURCE

CamScanner

Explain, with reference to the code shown, how the JavaScript collects the dimensions of the rectangle, calculates the area and displays the area on-screen.

The lines of the code are numbered only for your convenience when referring to the code.

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STUDENTS RESOURCE

CamScanner

9626/32/O/N/19/Q3

18 JavaScript uses strings to store data.

This script is intended to display the contents of three variables on a web page.

Line numbers are provided only for your convenience when referring to the code.

```
1  <html>
2  <body>
3
4  <p id="names"> </p>
5  <script>
6  var statementtxt1 = "It's only me, 'Hardeep'";
7  var statementtxt2 = "His name is "Peter"";
8  var statementtxt3 = "We call her Jasmine";
9  document.getElementById( 'names' ).innerHTML = statementtxt1 + "<br>"
   + statementtxt2 + "<br>" +  statementtxt3;
10 </script>
11 </body>
12 </html>
```

Explain, giving reasons, why no output is produced when this JavaScript is executed by a web browser as part of a web page.

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..... [3]

STUDENTS RESOURCE

CamScanner

9626/32/O/N/19/Q4

A web page uses JavaScript code to display a list of food crops.

Line numbers are provided only for your convenience when referring to the code.

```
1  <html>
2  <body>
3  <p id="foodcrops"></p>
4  <script>
5  var crops = ["corn", "rice", "maize", "sugarcane"];
6  var i = 0;
7  var show = "";
8  while (crops[i]) {
9      show += crops[i] + "<br>";
10     i++;
11 }
12 document.getElementById("foodcrops").innerHTML = show;
13 </script>
14 </body>
15 </html>
```

(a) Explain, in detail, how the JavaScript code produces this list from an array.

corn
rice
maize
sugarcane

STUDENTS RESOURCE

CamScanner

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..... [8]

(b) Explain how you would amend the existing JavaScript code to add 'beans' to the array so that it would produce this list.

beans
corn
rice
maize
sugarcane

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..... [2]

STUDENTS RESOURCE

CamScanner

9626/32/F/M/20/Q9

In JavaScript, conditional statements can be used to carry out specific actions based upon different conditions. The value of the variable 'age' is entered into a web page and collected by the HTML code of the page. The function in Fig. 9.1 uses the 'if else' and 'else if' conditional statements to test the value of the variable 'age'. Line numbers are shown only for your convenience when referring to the code.

```
1   function myFunction() {
2     var statement;
3     var age = document.getElementById("age").value;
4   if (age < 10) {
5     statement = "You are not old enough to go to this school";
6   } else if (age < 18) {
7     statement = "You can go to this school";
8   } else {
9     statement = "You are too old to go to this school";
10  }
```

Fig. 9.1

(a) Explain, with reference to the code in the function, how the 'if else' and 'else if' statements operate to provide the appropriate statement when an age is entered into the web page and collected by the HTML code.

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STUDENTS RESOURCE

CamScanner

(b) The code could have been written using the 'switch' function, e.g. lines 4 to 7 could have been:

```
4  switch(true) {
5  case age < 10:
6    statement = "You are not old enough to go to this school";
7  break;
```

with additional lines for the other conditions.

Explain the drawbacks of using the 'switch' function.

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STUDENTS RESOURCE

CamScanner

9626/31/M/J/20/Q8

Nigel is creating a website which uses JavaScript. He uses scripts to manipulate text held in HTML elements so that it can be displayed on his pages.

(a) Explain what is meant by an 'HTML element'.

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..... [2]

Nigel uses this code to manipulate the text on his page. The line numbers are shown only for reference purposes.

```
1
2   <html>
3   <body>
4
5   <h2>Nigel uses this JavaScript to change HTML</h2>
6
7   <p id="a1">Nigel's original text was here</p>
8
9   <script>
10  document.getElementById("a1").innerHTML = "Nigel changed this!";
11  </script>
12
13  <p>The paragraph above was changed by Nigel's script.</p>
14
15  </body>
16  </html>
```

(b) Explain, in detail, how this JavaScript would change what is displayed on the web page.

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..... [2]

STUDENTS RESOURCE

CamScanner

9626/32/M/J/20/Q10

22 A teacher is creating a web page for his students to find out their result, Merit, Pass or Fail, by entering their test score. The teacher has chosen to use the JavaScript switch function to examine the test score entered by the student and report the result on the web page.

The code for the web page is shown in Fig. 10.1. The lines are numbered only for your convenience.

```
1
2  <html>
3  <body>
4
5  <input id="myTscore" type="number" value=0>
6  <button onclick="tscorelookup()">Check Your Result by entering your
   test score 0-100 </button>
7  <p id="myresult"></p>
8
9  <script>
10 function tscorelookup(){
11 var report;
12 var result = document.getElementById("myTscore").value;
13
14 switch(true){
15 case result < 0:
16 report = "You cannot score a mark below 0";
17 break;
18 case result > 100:
19 report = "You cannot score a mark above 100";
20 break;
21 case result >= 40:
22 report = "Your result is a Merit";
23 break;
24 case result >= 20:
25 report = "Your result is a Pass";
26 break;
27 case result < 20:
28 report = "Your result is a Fail";
29 break;
30 default:
31 report = "Please enter a valid mark";
32 }
33 document.getElementById("myresult").innerHTML = report;
34 }
35 </script>
36
37 </body>
38 </html>
```

Fig. 10.1

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The HTML code in lines 5 to 7 collects the test score entered by the student and, when the button is clicked, makes the test score available to the JavaScript code that starts at line 9.

Describe, in detail, how the JavaScript code works to handle a test score of 18.

.....

.....

.....

9626/32/O/N/20/Q1

23 (a) Explain the meanings of these terms when referring to JavaScript objects.

(i) string

.....

..... [1]

(ii) global

.....

..... [1]

(iii) regular expression

.....

..... [1]

(iv) operator

.....

..... [1]

(v) statement

.....

.....

..... [1]

(b) Describe, in detail, the use of **console.log()** in JavaScript to output data for display.

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..... [4]

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9626/33/O/N/20/Q5

(a) The JavaScript code shown in **Fig. 5.1** adds together 12 and 6 to produce the result 18. Line numbers are shown only for reference purposes.

```
1  <html>
2  <head>
3  </head>
4  <body>
5  <br>
6  <h1>A Web Page</h1>
7  <p>A Paragraph</p>
8  <script>
9          var x, y;
10         x=12;
11         y=6;
12         window.alert(x + y);
13 </script>
14 </body>
15 </html>
```

Fig. 5.1

Describe how the script operates to display the result on the screen.

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..... [6]

JavaScript uses the display capabilities of web browsers' windows to output the results of its scripts.

(b) Explain why JavaScript uses a browser's windows to display results of running scripts.

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.....

..... [1]

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9626/33/O/N/20/Q9

25 When creating letters by mail merge, mail merge rules can be used to automatically select data from sources for inclusion in the letters.

Describe the use of the following mail merge rules to select data.

(a) If...Then...Else

.....

.....

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.....

.....

.....

.....

..... [3]

(b) Next Record If

.....

.....

.....

.....

.....

.....

.....

..... [3]

(c) Skip Record If

.....

.....

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.....

.....

..... [2]

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9626/31/M/J/21/Q10

6 Jasmine is using JavaScript on her web pages to provide interactivity. She has encountered some runtime errors during the testing of her JavaScript code.

She has written some code including `window.onerror = function (msg, url, line)`

The `onerror()` event handler will trap errors.

Describe how this can help Jasmine locate the mistakes in the rest of her code.

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..... [6]

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9626/31/O/N/21/Q10

27 JavaScript is an interpreted language that can be used on web pages. Runtime errors, called exceptions, can occur during the execution of JavaScript code.

Explain how exceptions can be handled during the execution of JavaScript code.

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..... [6]

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9626/32/O/N/21/Q3

JavaScript is a programming language used within HTML on web pages.

Explain why it is considered good practice when coding in JavaScript to:

(a) place all declarations at the start of each script or function

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.....

.....

.....

..... [2]

(b) initialise variables when first declared

.....

.....

.....

.....

.....

..... [2]

(c) avoid using `eval()` to run a string as code

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..... [1]

(d) always declare local variables.

.....

.....

..... [1]

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9626/32/F/M/22/Q7

29 The `prompt()` method is used in JavaScript to provide a popup dialog box for users to interact with web pages.

(a) Explain how the result of the user interaction from `prompt()` is used by a programmer to collect the input from a user.

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..... [4]

(b) Explain **two** limitations of using the `prompt()` method of user interaction.

1 .....

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2 .....

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[2]

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9626/31/M/J/22/Q8

JavaScript code can use comparison operators.

Explain how each of the following comparison operators works in JavaScript when comparing the number 1 with the text "1".

(a) the == operator

.....

.....

.....

..... [2]

.....

(b) the !== operator

.....

.....

.....

..... [2]

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STUDENTS RESOURCE

CamScanner

9626/32/M/J/22/Q4

31 The `confirm()` method is used in JavaScript to create and provide dialog boxes for users to interact with web pages.

(a) Describe the purpose of **two** elements of the dialog box that appears when `confirm()` is used.

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..... [2]

(b) Explain why the use of `confirm()` may cause problems on web pages.

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..... [3]

(c) Explain how the result of the user interaction from `confirm()` is reported back to the JavaScript code for use in the remaining code.

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..... [3]

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